



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/573,001

01/16/2007

Peter Kellner

F-9043

4554

28107 7590 02/01/2011  
JORDAN AND HAMBURG LLP  
122 EAST 42ND STREET  
SUITE 4000  
NEW YORK, NY 10168

EXAMINER

A, PHI DIEU TRAN

ART UNIT

PAPER NUMBER

3633

MAIL DATE

DELIVERY MODE

02/01/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/573,001	KELLNER, PETER	
	<b>Examiner</b>	<b>Art Unit</b>	
	PHI D. A	3633	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 26 and 28-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26 and 28-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 3633

**Claim Rejections - 35 USC § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 26, 35, 40-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen (3720027) in view of Foster (6607803) and Staten (5820798).

Christensen (figure 3) shows a plane element for floors comprising a multilayer plate having a top face and a bottom face, the multilayer plate comprising a thin pressure and abrasion resistant panel having a top face to be exposed as the top face of the plane element upon installation of the plane element and a bottom face, and a layer of pressure resistant lightweight material having a top face adhered to the panel bottom face and a bottom face, and wherein grooves are situated in vertical edges of the plate beneath the panel, the grooves having a depthwise dimension vertical to said faces, each of the grooves being adapted to receive a connecting element comprising ledges adapted to be received in the grooves of adjacent said plane elements for connecting said adjacent plane elements together when said plane elements are side-by-side on a flat surface, whereby the panel and the lightweight material layer are substantially flush apart from any irregularities in the edges, a planar reinforcing material situated between and coextensive with and adhered to at least respective portions of the bottom face of the panel and the top face of the lightweight material, the planar reinforcing material being highly stable and being of lesser thicknesses and higher Young's modulus than the panel, a plurality of connecting elements comprising ledges adapted to be received in the grooves of

Art Unit: 3633

adjacent said plane elements for connecting said adjacent plane elements together when said plane elements are side-by side on a fiat surface, wherein each said connecting element comprises a vertical blade of a height predetermined so that a top edge of the vertical blade will be substantially flush with the top face of the panel upon installation of the flooring and two horizontal blades on opposite sides of the vertical blade, the two vertical blades comprising said ledges and being of width slightly smaller than width of the grooves, liner elements for the grooves, the liner elements being comprised of a material different from the lightweight material and being received in the grooves, wherein the top edge is covered by a decorative material, wherein portions of the horizontal blades are of greater thickness than the remainder of the horizontal blades for firmer engagement in the grooves, wherein the ledges are so configured as to form a miter at upper edges thereof when the respective ledges meet at the cross-over of plates joined in two horizontal directions, wherein the furrows are spaced from the grooves and/or edges of the lightweight material layer, wherein the furrows impinge on the grooves and/or edges of the lightweight material layer, additional layers between the panel and the lightweight material layer, at least one additional layer adjacent the bottom face of the lightweight material layer, fleece on the bottom face of the lightweight material layer as glue primer, and an application of glue on the primer, wherein the at least one additional layer is adhered by means of the glue-bearing primer to the bottom face of the lightweight layer material, wherein the plate is comprised of at least one of natural stone, glass, wood or metal.

Christensen does not show the layer of pressure resistant lightweight material comprising polypropylene, wherein the respective grooves are of lesser length than the respective edges at which the grooves are formed and do not extend to comers of the plate.

Art Unit: 3633

Foster shows a layer of pressure resistant lightweight material comprising polypropylene.

Staten shows grooves of lesser length than the edges at which the grooves are formed and do not extend to corners of the plate.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Christensen's structures to show the layer of pressure resistant lightweight material comprising polypropylene as taught by Foster since it would have been an obvious matter of engineering design choice to choose a particular material to form a pressure layer as long as it provides the necessary properties for supporting and insulating the panels, having the grooves of lesser length than the edges at which the grooves are formed and do not extend to corners of the plate would enable the easy and secured attachment of the adjacent panels together with the grooves functioning as extra support as taught by Staten.

3. Claims 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen (3720027) in view of Foster (6607803) and Staten as applied to claim 26 above and further in view of Zambelli et al (6457288)

Christensen (figure 3) as modified shows all the claimed limitations except for furrows are formed in the bottom face of the lightweight material layer, wherein furrows are formed in the top face of the lightweight material layer, wherein furrows are formed in both faces of the lightweight material, wherein the furrows extend in two orthogonal directions.

Zambelli et al (figure 2) shows furrows are formed in the bottom face of the lightweight material layer, wherein furrows are formed in the top face of the lightweight material layer, wherein furrows are formed in both faces of the lightweight material, wherein the furrows extend in two orthogonal directions.

Art Unit: 3633

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Christensen's modified structures to show furrows are formed in the bottom face of the lightweight material layer, wherein furrows are formed in the top face of the lightweight material layer, wherein furrows are formed in both faces of the lightweight material, wherein the furrows extend in two orthogonal directions as taught by Zambelli et al since it would enable the formation of a strong, insulating and light weight panel.

Per claim 32, Christensen as modified shows all the claimed limitations except for the furrows having a depth of 1mm to 10mm.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Christensen's modified structures to show furrows having a depth of 1mm to 10mm since it would have been an obvious matter of engineering design choice to form a layer as thick as needed as long as it provides the necessary insulation and weight properties; furthermore, it has been held that choosing a particular dimension for a structure would have involved the skill of one having ordinary skill in the art.

4. Claims 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen (3720027) in view of Foster (6607803) and Staten as applied to claims 26 above and further in view of Coffey (2280631).

Christensen as modified shows all the claimed limitations except for vertical openings are formed through the lightweight material layer.

Coffey shows vertical openings are formed through the lightweight material layer.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Christensen's modified structures to show vertical openings are formed

Art Unit: 3633

through the lightweight material layer since it creates good sound absorbing material as taught by Coffey.

Per claim 34, Christensen as modified further show the vertical openings being located at where two of the grooves extending in orthogonal directions would otherwise intersect.

5. Claims 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen (3720027) in view of Foster (6607803) and Staten as applied to claims 26 above and further in view of Akers (2154390).

Christensen as modified shows all the claimed limitations except for a planar reinforcing material situated between and coextensive with and adhered to at least one respective portions of the bottom face of the panel and the top face of the lightweight material, the reinforcing material comprising of at least one of CFRP, CFRP fabric, glass fibers or metal.

Akers shows a planar reinforcing material situated between and coextensive with and adhered to at least one respective portions of the bottom face of the panel and the top face of the lightweight material, the reinforcing material comprising of at least one of CFRP, CFRP fabric, glass fibers or metal..

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Christensen's modified structures to show a planar reinforcing material situated between and coextensive with and adhered to at least one respective portions of the bottom face of the panel and the top face of the lightweight material, the reinforcing material comprising of at least one of CFRP, CFRP fabric, glass fibers or metal as taught by Akers in order to reinforce the floor structures against bending stresses.

Art Unit: 3633

6. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen (3720027) in view of Foster (6607803) and Staten as applied to claim 26 or 27 above and further in view of Akers (2154390).

Christensen as modified shows all the claimed limitations except for the plate comprising of natural stone.

Akers shows a plate comprising of concrete.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Christensen's modified structures to show the plate comprising of natural stone since stone or concrete would provide the strong necessary strength for a floor structure.

7. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen (3720027) in view of Foster (6607803).

Christensen as modified shows all the claimed limitations except for the plane element is quadrilateral is of thickness 10-20mm and has edges of length 300-500mm.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Christensen's modified structures to show the plane element is quadrilateral is of thickness 10-20mm and has edges of length 300-500mm since it would have been an obvious matter of engineering design choice to choose a particular dimension for a panel as long as it satisfies the specific design requirements.

8. Claim 53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen (3720027) in view of Foster (6607803) and Staten as applied to claim 26 above and further in view of Rothberg (5383314).



Art Unit: 3633

Christensen as modified shows all the claimed limitations except for the bottom face of the layer of pressure resistant lightweight material defining a series of openings and adjacent furrows, the openings being substantially circular whereby semicircular portions are bisected by an adjacent furrow.

Rothberg discloses a panel having a plurality of series of openings and adjacent furrows, the openings being substantially circular whereby semicircular portions are bisected by an adjacent furrow.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Christensen's modified structures to show the bottom face of the layer of pressure resistant lightweight material defining a series of openings and adjacent furrows as taught by Rothberg in order to allow for drainage of moisture from the bottom face of the panel, and having the openings being substantially circular whereby semicircular portions are bisected by an adjacent furrow would have been obvious to one having ordinary skill in the art as it would have been an obvious matter of engineering design choice to choose any particular design for water/moisture drainage as long as it provides the needed drainage flow rate.

### **Response to Arguments**

9. Applicant's arguments with respect to claims 26, 28-54 have been considered but are moot in view of the new ground(s) of rejection.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art shows different panel designs.

Art Unit: 3633

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phi D A whose telephone number is 571-272-6864. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Dunn can be reached on 571-272-6670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Phi D A/  
Primary Examiner, Art Unit 3633

Phi Dieu Tran A

12/6/2010